

UK Living Kidney Sharing Scheme Workshop Session

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UK LKD Network April 2022



Caring Expert Quality



Discussion.....



Questions

- How a run works, responsibilities of centres
- Administration, form completion, common pitfalls
- Delisting/ extended criteria
- 'Turning the dials' for age matching/ appropriate level of acceptable mismatch
- Multiple donors
- How chains work for non-directed altruistic donation





How a run works





Priorities



- Maximise transplants by
 - Increasing the donor pool
 - Flexibility in the scheme
 - Tackling non-proceeding transplants
 - Improving access and awareness for donors and recipients



The scheme today - matching runs identify....





Identifying Optimal Combination of Transplants

- Over 250-300 pairs every 'matching run'
- This results in 2000-5000 arcs (donor-recipient matches)
- Arcs are weighted to give preference to certain matches
- Seek to maximise number of transplants according to criteria developed with transplant community



Acknowledgement: Tommy Muggleton

Matching software implemented by colleagues at University of Glasgow, School of Computing Science

Matching Principles

Optimal Combination of Transplants¹

- Maximise 2-way exchanges (inc. embedded in 3-way)
- Maximise number of transplants
- 3. Minimise 3-way exchanges
- 4. Maximise 3-way with embedded 2-way and long chains
- 5. Maximise 'score' of set of transplants

Score based on

- Previous matching runs for patient
- Sensitisation of patient
- HLA mismatch of identified transplant
- Donor-donor age difference

¹Matching software implemented by colleagues at University of Glasgow, School of Computing Science

Key Characteristics

• UK-wide scheme; centrally run by NHSBT

- All UK transplant centres participate (adults & children)
- All work up complete
- Recipients can be registered with >1 donor
- Incompatible and compatible pairs
- Can define individual age & HLA match requirements
- Permit simple HLA or ABO incompatible transplants through scheme
- Simultaneous surgery preferred; kidneys travel
- Anonymity prior to surgery
- Annual timetable; quarterly matching runs
- 'Pre-run' to confirm inclusion of potential donor matches

 All recipients suspended from UK deceased donor transplant list once match identified

External Timetable

UK LIVING KIDNEY SHARING SCHEMES 2022 TIMETABLE

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	DEADLINE FOR: NEW REGISTRATION FORM RECEIPT (Pairs)	DEADLINE FOR: CONFIRMATION OF PAIR INCLUSION REGISTRATION OF ALTRUISTIC DONORS EXTENDED MATCHING CRITERIA HLA UNACCEPTABLE ANIGENS	DEADLINE FOR: Returning complex donor and inclusion report	INITIATE: LIVING DONOR KIDNEY MATCHING RUN	DEADLINE FOR: LATEST DATE OF TRANSPLANT TO ENSURE INCLUSION IN THE NEXT MATCHING RUN
	(Midday 3 weeks prior to LDKMR)	(Midday 9 working days prior to LDKMR)	(Midday 2 working days prior to LDKMR)		(day of next cycle's new registration form receipt deadline)
January 2022	Wednesday 5 th January	Thursday 13 th January	Monday 24 th January	Wednesday 26 th January	Monday 4 th April
April 2022	Monday 4 th April	Thursday 14 th April	Monday 25 th April	Wednesday 27 th April	Monday 4 th July
July 2022	Monday 4 th July	Thursday 14 th July	Monday 25 th July	Wednesday 27 th July	Monday 3 rd October
October 2022	Monday 3 rd October	Thursday 13 th October	Monday 24 th October	Wednesday 26 th October	Wednesday 4 th January 2023



Internal Timetable

UK LIVING KIDNEY SHARING SCHEMES 2022 TIMETABLE

[Registration	Registration	DD KMRs	DEADLINE	Latest date to	DEADLINE	Pre LDKMR	DEADLINE FOR	INITIATE LIVING	Latest send	First date to	LATEST DATE OF
	& Pair	& Pair Inclusion	NDADs Pref 1	FOR NEW	produce	FOR	(Ad-hoc)	RETURNING	DONOR KIDNEY	out for match	chase the	TRANSPLANT TO
	Inclusion	Deadlines	(chain)	REG. FORM	Waiting List	CONFIRMATION OF	matching run	COMPLEX	MATCHING RUN	reports	crossmatch	ENSURE INCLUSION
	Deadlines	Reminder		RECEIPT	and pre-pop	PAIR INCLUSION	for donors	DONOR AND		-	result	IN THE NEXT
	Reminder	Email (2)		(Pairs)	Pair inclusion		with special	INCLUSION				MATCHING RUN
	Email (1)				(reactivation)	and Registration of	consideration	REPORT				
					forms	NDAD's	s (complex)					
						(and EMC and UNASCEPS)						
	(7 weeks prior to LDKMR)	(5 weeks prior to LDKMR)	(4 weeks prior to LDKMR)	(Midday 3 weeks prior to LDKMR)	(max 3 working days after reg. deadline)	(Midday 9 working days prior to LDKMR)	(7 working days prior to LDKMR)	(2 working days prior to LDKMR)		(max 5 working days after LDKMR date)	(2 weeks after match reports issued)	(same day as next new reg. deadline)
EAM	ню/со	ню/со	HIO/CO/SS	SS/RT	HIO/ (CO/RT)	HIO/CO/RT	HIO/ (CO/DE)	HIO/SS/RT	HIO/RT/SS/DE/C O	ню/со	ню/со	CENTRES
JAN 2022	Wednesday 1 st December *	Wednesday 15 th December *	Tuesday 4th January **	Wednesday 5 th January	Monday 10 th January	Thursday 13 th January	Monday 17 th January	Monday 24 [™] January	Wednesday 26 th January	Wednesday 2 nd February	Wednesday 16 th February	Monday 4th April
APR 2022	Wednesday 9 th March	Wednesday 23 rd March	Wednesday 30 th March	Monday 4 th April	Monday 11 th April	Thursday 14 th April	Tuesday 19 th April ***	Monday 25 th April	Wednesday 27 th April	Wednesday 4 th May	Wednesday 18 th May	Monday 4 th July
JUL 2022	Wednesday 8 th June	Wednesday 22 nd June	Wednesday 29 th June	Monday 4 th July	Monday 11 th July	Thursday 14 th July	Monday 18 th July	Monday 25 th July	Wednesday 27 th July	Wednesday 3 rd August	Wednesday 17 th August	Monday 3rd October
ост	Wednesday	Wednesday	Wednesday	Monday	Monday	Thursday	Monday	Monday	Wednesday	Wednesday	Wednesday	Wednesday
2022	7 th September	21 st	28 th	3 rd October	10 th October	13 th October	17 th October	24 th October	26 th October	2 nd	16 th	4 th January 2023
2022	-	September	September							November	November	-

It's a Team Sport: Leadership and Support

- Central leadership and administration (NHSBT)
 - Statisticians, Information/hub services staff, Digital and database teams
- External computer science expertise (University of Glasgow)
- Donor and recipient participation
- Clinical buy-in transplant and non-transplant centres
- H&I collaboration- laboratories UK-wide





Your responsbilities



Non-proceeding Transplants





October 2017- July 2018 (46 reasons)



Monitoring Performance



1. Registration

Complete and accurate information, on time:

- All relevant donor and recipient information
- Recipient HLA and donor age preferences
- Extended criteria (ABO and HLA)
- Donor complexity





2. Confirmation of Inclusion

If in doubt, leave them out





3. Complex donors

Do register relevant complexity Don't include unnecessary detail If in doubt, decline an offer of a complex donor





Non-directed (altruistic) donors



The scheme today - matching runs identify....



Donating to a Stranger







Source: Annual Report on Living Donor Kidney Transplantation 2019/20, NHS Blood and Transplant

Non-simultaneous Surgery



- Introduced in 2015 to facilitate 'long chains' and logistically complex exchanges
- Mostly due to access to theatres/capacity in individual centres
- Delay is the greatest enemy- high risk of non-proceeding transplants
- Low risk of non-proceeding but increased risk associated with
- Clinical reasons for staggering
- Extended intervals between transplants (> 2 weeks between 1st and last transplants)
- End of chain recipients
- Safeguards
- All donors and recipients in the exchange understand the 'rules of engagement'
- Recipient prioritisation for transplant listing if a paired donor donates and their recipient misses out on a transplant
- Occurs in both simultaneous and non-simultaneous surgery



Shared learning and decision making



NHS Blood and Transplant



Blood and Transplant

	Deceased Donor	NLDKSS	ABOi	HLA
6 Months	-	-	-	-
1 Year		-	-	
3 Years		-	-	1

	Transplant Survival Rates				
	Deceased Donor	NLDKSS	ABOI	HLAI	
6 Months		-	•		
1 Year					
3 Years	-	-	-	-	

Disclaimer: The information is provided for guidance only Note: Chances of transplant through the NLDKSS could be increased by considering and antibody incompatible transplant within the scheme

For a more accurate estimation of waiting time for a deceased donor transplant based on more variables, please visit

tp://www.odt.nhs.uk/doc/chance_of_transplant.xls

Figure 2.2 shows the number of adult living donor kidney transplants performed in

Year of transplant

ABO incompatible dopor
Paired exchange dopor
Altruistic dopor (non-directed)

Unrelated donor (directed) HLA incompatible donor

Select

Incompatible Pairs Living Donor Information Application

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Reset

the UK between 1 April 2003 and 31 March 2018. The number of transplants

Figure 2.2 Adult living donor kidney transplants in the UK, 1 April 2003 - 31 March 2018

increased from 412 in 2003/04 to 940 in 2017/18.

Related donor

Variable

ecipient Blood Group

alculated Reaction Frequer Jonor Blood Group BOi TX with willing Donor

ILAi TX with willing Donor

ecipient Age

1200

1000

800



http://www.odt.nhs.uk/living-donation



What next?



Going Digital



Acknowledgements

NHS Blood and Transplant colleagues Information Services Scientific Support Team Statistics and Clinical Studies

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Thank you.

